

REMARKS

A. Status of the Claims

Claims 64-106 were pending at the time of the Action. Claims 74-75 and 102-104 have been withdrawn. Thus, claims 64-73, 76-101, and 105-106 were examined. Claims 64, 66, 69-71, 74-78, 85, 88-89, and 96-99 have been amended. Support for the amended claims can be found in the specification at, for example, page 7, lines 1-10, and page 15, lines 25-33. Claims 67-68 and 105-106 have been cancelled. Thus, claims 64-66, 69-73, and 76-101 are currently under examination.

B. Objections to the Specification

The Action noted the following informalities in the specification: (i) the preliminary amendment filed on 7/31/03 replaced beginning paragraphs on pages 1 and 36 and contained blank lines for the concurrently filed U.S. Application No.; and (ii) claim 85 recites “complementary acids,” but should recite “complementary nucleic acids.”

Applicants have provided the U.S. Application No. in the indicated paragraphs in the amendment to the specification filed with this paper. In addition, Applicants have corrected the typographical error in claim 85. Applicants respectfully request the withdrawal of these objections.

C. The Rejection Under 35 U.S.C. § 102(b) is Overcome

The Action rejects claims 64-73, 76-84, 86-101, and 105-106 under 35 U.S.C. § 102(b) as being anticipated by Kato *et al.* (EP 0 870 842). Applicants traverse this rejection.

Kato describes a method in which at least two types of sample each containing a cDNA to be determined are prepared (p. 2, ln. 56 to p. 3, ln. 15); “[s]ubsequently, the cDNAs in Sample A and Sample B are digested with a specific restriction enzyme (e.g., MboI, NlaIII, HpaII or

TaqI)” and different adaptors are ligated to the cut site of the cDNAs (p. 3, ln. 19-26); the adaptor-tagged cDNAs are then amplified using an adaptor primer and a gene specific primer and the amplified products are detected (p. 4, ln. 21-40).

In contrast, with the currently claimed method a nucleic acid target is tagged by hybridizing the nucleic acid target to a nucleic acid tag having a 5’ end comprising an amplification domain, a 3’ end that is complementary to the nucleic acid target, and an intervening sequence comprising a differentiation domain; and then extending the hybridized nucleic acid tag using a polymerase to create the tagged nucleic acid. The presently claimed method is superior to the method described by Kato because the claimed invention tags the nucleic acid target during reverse transcription or amplification. Kato, on the other hand, uses multiple steps of preparing a cDNA, restriction enzyme digestion of the cDNA, and adaptor ligation to the digested cDNA in order to tag the cDNA molecule.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. MPEP § 2131. The Kato reference does not teach every element of the current claims. For example, Kato does not teach a method in which a nucleic acid target is tagged by hybridizing the nucleic acid target to a nucleic acid tag having a 5’ end comprising an amplification domain, a 3’ end that is complementary to the nucleic acid target, and an intervening sequence comprising a differentiation domain; and then extending the hybridized nucleic acid tag using a polymerase to create the tagged nucleic acid. Applicants, therefore, request the withdrawal of this rejection.

D. The Rejection Under 35 U.S.C. § 103(a) is Overcome

The Action rejects claim 85 under 35 U.S.C. § 103(a) as being over Kato *et al.* in view of Wang (U.S. 6,004,755). The Action states that Kato teaches a method of comparing one or more nucleic acid targets within two or more samples. The Action notes, however, that Kato does not

specifically teach that the solid support is an array comprising a plurality of complementary nucleic acids bound to the array. The Action asserts that Wang teaches a method for quantitative gene expression analysis using a microarray that comprises a plurality of complementary probe sequences bound to it. The Action argues that it would have been obvious to modify the method of Kato with a step of using an array as taught by Wang. Applicants traverse this rejection.

To establish a *prima facie* case of obviousness, the prior art references must teach or suggest all of the claim limitations. MPEP § 2142. For the reasons discussed in the preceding section, Kato does not teach or suggest all of the limitations of current independent claim 64. In particular, Kato does not teach or suggest a method in which a nucleic acid target is tagged by hybridizing the nucleic acid target to a nucleic acid tag having a 5' end comprising an amplification domain, a 3' end that is complementary to the nucleic acid target, and an intervening sequence comprising a differentiation domain; and then extending the hybridized nucleic acid tag using a polymerase to create the tagged nucleic acid. Rather, Kato uses a number of steps including, preparing a cDNA, restriction enzyme digestion of the cDNA, and adaptor ligation to the digested cDNA in order to tag a cDNA molecule. If an independent claim is nonobvious under 35 U.S.C. § 103(a), then any claim depending therefrom is nonobvious. MPEP § 2143.03. Accordingly, Applicants request that the obviousness rejection against claim 85 be withdrawn.

E. The Provisional Double Patenting Rejection

Claims 64-73, 76-99, and 105-106 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 52-116 of copending Application No. 10/632,539. As noted in the Action, this rejection is provisional because the conflicting claims have not in fact been patented. Applicants will consider filing a terminal disclaimer, if appropriate, once allowable subject matter is identified.

F. Conclusion

In view of the above, Applicants believe this to be a complete reply to the Office Action dated July 11, 2006, and respectfully request favorable consideration of the claims in view of the amendments and statements contained herein. The Examiner is invited to contact the undersigned attorney at (512)536-5654 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,



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